



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/803,744	03/08/2001	Yukihisa Takeuchi	789_067	8510

25191 7590 11/25/2003

BURR & BROWN
PO BOX 7068
SYRACUSE, NY 13261-7068

EXAMINER

KOVALICK, VINCENT E

ART UNIT	PAPER NUMBER
----------	--------------

2673

8

DATE MAILED: 11/25/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/803,744

Applicant(s)

TAKEUCHI ET AL.

Examiner

Vincent E Kovalick

Art Unit

2673

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
 - Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 March 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 12-17 is/are allowed.
- 6) ☒ Claim(s) 1,2 and 8 is/are rejected.
- 7) ☒ Claim(s) 3-7 and 9-11 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>4,6 & 7</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This Office Action is in response to Applicant's Patent Application, Serial No. 09/803,744, with a File Date of March 8, 2001.

Claim Rejections - 35 USC § 103


2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shiota et al. (USP 6,288,756) taken with Matsuura (USP 6,493,468).

Relative to claim 1, Shiota et al. **teaches** luminance correction circuit and video display monitor thereof (col. 2, lines 18-34); Shiota et al. further **teaches** a method for producing a display apparatus constructed by arranging a plurality of display units arranged with a plurality of display components, said method comprising the steps of displaying a uniform image on said display apparatus to detect luminances of said respective display components (col. 3, lines 7-14); still further, Shiota et al. **teaches** calculating luminance correction coefficients for said respective display components on the basis of luminance target values of said respective display components (col. 3, lines 7-14).

Shiota et al. **does not teach** calculating luminance target values of said respective display components.



Art Unit: 2673

Matsuura teaches an image processing apparatus and method (col. 1, lines 64-67 and col. 2, lines 1-61); Matsuura further **teaches** calculating luminance target values of said respective display components (col. 2, lines 16-26).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to incorporate in the methodology as taught by Shiota et al. the feature as taught by Matsuura in order to establish the luminance target values necessary for correcting unevenness (smoothing) in the luminance level and color of video images displayed on video display monitors as suggested by Shiota et al. (col. 2, lines 1-14).

Regarding claim 2, Matsuura further **teaches** the method step for producing said display apparatus wherein said luminance target value is calculated by averaging said luminances of said display component and said plurality of display components arranged therearound, and regarding an obtained average value as said luminance target value of said display component (col. 2, lines 16-26).

4. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shiota et al. taken with Matsuura as applied to claim 1 in item 3 hereinabove, and further in view of Kasahara et al. (USP 6,509,884).

Regarding claim 8, Shiota et al. taken with Matsuura **does not teach** the method of producing said display apparatus wherein said luminance correction coefficient is calculate in consideration of color temperature.

Kasahara et al. **teaches** a display device and luminance control method therefor (col. 2, lines 11-67 and col. 3, lines 1-18); Kasahara et al. further **teaches** a method of producing said display

Art Unit: 2673

apparatus wherein said luminance correction coefficient is calculate in consideration of color temperature (col. 1, lines 34-41).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to incorporate in the methodology as taught by Shiota et al. taken with Matsuura the feature as taught by Kasahara et al. in order to put in place the means to monitor the thermal stresses created by the temperature difference in the display screen and control the luminance accordingly.

Allowable Subject Matter

5. Claims 3-7 and 9-11 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Relative to claim 3, the prior art of recored (USP 6,509,884, Kasahara et al.; USP 6,493,468, Matsuura and USP 6,288,756, Shiota et al.) **does not teach** the method for producing said display apparatus wherein said plurality of display components, which are arranged around said display component, are included in a group of said display components corresponding to $(2m + 1)$ rows aligned in a vertical direction, and they are included in a group of said display components corresponding to $(2n + 1)$ columns aligned in a horizontal direction.

Regarding claim 6, the said prior art of record **does not teach** the method for producing said display apparatus further comprising: a first step of retrieving said display component which exhibits a minimum value of said calculated luminance target values; and a second step of increasing said current luminance target value by a certain value for said retrieved display

Art Unit: 2673

component.

As to claim 7, the said prior art of record **does not teach** the method for producing said display apparatus further comprising the steps of: retrieving said display component which exceeds a threshold value of said calculated luminance target values; and decreasing said current luminance target value to said threshold value for said retrieved display component.

Regarding claim 9, the said prior art of record **does not teach** the method for producing said display apparatus further comprising the steps of: INIP performing standardization for said calculated luminance target values for said respective display components in accordance with a color scheme respectively; making amendment so that values obtained after said standardization are included in a certain range; and performing a restoring process for values obtained after said amendment in accordance with said color scheme respectively to obtain luminance target values in consideration of said color temperature.

Relative to claim 11, the said prior art of record **does not teach** the method for producing said display apparatus wherein said display unit is a display unit comprising an optical waveguide plate for introducing light from a light source thereinto, and a driving section provided opposingly to a first plate surface of said optical waveguide plate and arranged with said display components of a number corresponding to a large number of picture elements, wherein a screen image corresponding to an image signal is displayed on said optical waveguide plate by controlling a displacement action of an actuator element of said display component in a direction to make contact or separation with respect to said optical waveguide plate in accordance with an attribute of said image signal to be inputted so that leakage light is controlled at a predetermined portion of said optical waveguide plate.

Art Unit: 2673

6. Claims 12-17 are allowed.

7. The following is an examiner's statement of reasons for allowance:

Relative to claim 12, the major difference between the teachings of the said prior art of record and that of the instant invention is that said prior art **does not teach** a method for producing a display apparatus constructed by arranging a plurality of display units arranged with a plurality of display components, said method comprising the steps of obtaining characteristic values for said respective display units respectively; ranking said display units on the basis of said obtained characteristic values; partitioning an arrangement area (Z10) for said plurality of display units of said display apparatus to designate ranks of said display units to be arranged in respective areas (Z11, Z12); and arranging said display units in accordance with said designation to manufacture said display apparatus.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U. S. Patent No.	6,388,648	Clifton et al.
U. S. Patent No.	6,219,460	Tatsuta
U. S. Patent No.	6,091,397	Lee
U. S. Patent No.	6,020,868	Greene et al.
U. S. Patent No.	5,774,101	Hirai et al.
U. S. Patent No.	5,668,569	Green et al.
U. S. Patent No.	5,106,181	Rockwell, III

Art Unit: 2673

Responses

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vincent E Kovalick whose telephone number is 703 306-3020.

The examiner can normally be reached on Monday-Thursday 7:30- 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bipin Shalwala can be reached on 703 305-4938. The fax phone numbers for the organization where this application or proceeding is assigned are 703 872-9314 for regular communications and 703 872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703 306-0377.



Vincent E. Kovalick
May 29, 2003